



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
Environmental Sciences Center  
701 Mapes Road  
Fort Meade, Maryland 20755-5350

DATE : February 24, 2012

SUBJECT: Region III Data QA Review

FROM: Colleen Walling *Colleen K. Walling*  
Region III ESAT RPO (3EA20)

TO: Rich Fetzer  
Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS# R33917; SDG #: 480-15712-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042 TDF: 02101 Data Validation  
TO: #0042 TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw)  
Suddha Graves (Techlaw)

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Ex. 4 - CBI

**Date:** February 23, 2012

**Subject:** Organic Data Validation (M3 Level)  
Case: R33917  
Project: 480-15712-1  
Site: Dimock

**From:**

Ex. 4 - CBI

Organic Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

**To:** Colleen Walling  
ESAT Region 3 Project Officer

## **OVERVIEW**

Third party Case R33917, Project 480-15712-1, consisted of nineteen (19) aqueous samples including one (1) field blank analyzed for ethylene glycol, diethylene glycol, triethylene glycol, 2-methoxyethanol and 2-ethoxyethanol. Samples were analyzed by TestAmerica Buffalo (TAL BUF) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

## **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage\_4\_Validation\_Manual). Areas of concern with respect to data usability are listed below.

## **MAJOR PROBLEM**

- Peaks were detected in the GC/FID Method 8015B glycols analysis within the retention time window of target compounds diethylene glycol and triethylene glycol. However, the positive identification of these target compounds was not confirmed via second GC column and/or GC/MS analysis. For this reason, the target compounds were qualified "R" on the Data Summary Forms (DSFs) as their absolute identity could not be proven.

### **MINOR PROBLEM**

- The laboratory employed a four (4) point calibration curve for the analysis of the compounds requested; however, Method 8015B specifies the use of a five (5) point curve. No action was taken by the reviewer based on this deviation from the method.

### **NOTES**

- Reported recoveries and Relative Percent Differences (RPDs) in Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) analyses and Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample HW34a were within control limits.
- The calibration factors calculated by the reviewer were slightly different than those calculated by the laboratory. Results calculated using these calibration factors were within rounding errors from laboratory and data validation results.

### **ATTACHMENTS**

Appendix A – Glossary of Data Qualifier Codes

Appendix B – Data Summary Form(s)

Appendix C – Chain of Custody Records

Appendix D – Laboratory Case Narrative

DCN: R33917\_480-15712-1

## **GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)**

### **CODES RELATED TO IDENTIFICATION**

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

### **CODES RELATED TO QUANTITATION**

(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

### **OTHER CODES**

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

**DATA SUMMARY FORM: Volatiles**

Page 1 of 2

Case #: R33917

Project : 480-15712-1

Site :

DIMOCK

Number of Water Samples : 19

Lab. :

TAL BUF

Sample Number :		FB07		HW18		HW18-P		HW20		HW20-P	
Sampling Location :		FB07		HW18		HW18		HW20		HW20	
Laboratory ID :		480-15712-1		480-15712-2		480-15712-3		480-15712-4		480-15712-5	
Field QC :		Field Blank									
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		01/31/2012		01/30/2012		01/30/2012		01/30/2012		01/30/2012	
Time Sampled :		14:15		11:27		11:52		16:12		16:29	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										
Triethylene glycol	10	3.5	R	2.0	R						
Diethylene glycol	10	0.82	R	0.75	R	0.68	R	0.67	R	0.72	R
2-Methoxyethanol	10										
2-Ethoxyethanol	10										

Sample Number :		HW25-P		HW26		HW26-P		HW29		HW29z	
Sampling Location :		HW25		HW26		HW26		HW29		HW29	
Laboratory ID :		480-15712-6		480-15712-7		480-15712-8		480-15712-9		480-15712-10	
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		01/30/2012		01/31/2012		01/31/2012		01/31/2012		01/31/2012	
Time Sampled :		15:32		10:26		11:37		18:18		18:18	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										
Triethylene glycol	10			4.1	R	1.7	R				
Diethylene glycol	10	0.67	R	0.98	R	0.73	R	0.62	R	0.74	R
2-Methoxyethanol	10										
2-Ethoxyethanol	10										

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

## DATA SUMMARY FORM: Volatiles

Page 2 of 2

Case #: R33917

Project : 480-15712-1

Site :

DIMOCK

Lab. :

TAL BUF

Sample Number :		HW32		HW32-P		HW33		HW33a-P		HW33b-P	
Sampling Location :		HW32		HW32		HW33		HW33a		HW33b	
Laboratory ID :		480-15712-11		480-15712-12		480-15712-13		480-15712-14		480-15712-15	
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		02/01/2012		02/01/2012		02/01/2012		02/01/2012		02/01/2012	
Time Sampled :		10:45		10:50		10:49		10:42		11:42	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										
Triethylene glycol	10	1.7	R								
Diethylene glycol	10	0.75	R	0.94	R	0.51	R	0.97	R	0.89	R
2-Methoxyethanol	10										
2-Ethoxyethanol	10										

Sample Number :		HW34a		HW34a-P		HW35		HW52			
Sampling Location :		HW34a		HW34a		HW35		HW52			
Laboratory ID :		480-15712-16		480-15712-17		480-15712-18		480-15712-19			
Matrix :		Water		Water		Water		Water			
Units :		mg/L		mg/L		mg/L		mg/L			
Date Sampled :		02/01/2012		02/01/2012		01/31/2012		01/31/2012			
Time Sampled :		15:47		15:55		11:49		15:22			
Dilution Factor :		1.0		1.0		1.0		1.0			
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										
Triethylene glycol	10			3.0	R						
Diethylene glycol	10			0.95	R			0.90	R		
2-Methoxyethanol	10										
2-Ethoxyethanol	10										

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

## **Appendix C**

### **Chain of Custody Records**

## USEPA CLP Generic COC (LAB COPY)

Date Shipped: 2/2/2012

Carrier Name: FedEx

Airbill No: 7931 8465 7968

## CHAIN OF CUSTODY RECORD

Project Code: TL01-11-12-001

No: 3-020212-110259-0081

Lab: Test America DIM

Lab Contact:

Lab Phone: 716.504.9822

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW26-P	Drinking Water/ Dan Jacobsen	Grab	17GLY(7), 17GLY(7)	2164 (-NA- / 40mlGlassVial), 2165 (-NA- / 40mlGlassVial) (2)	HW26	01/31/2012 11:37	
HW29	Drinking Water/ Mike Ferrier	Grab	17GLY(7), 17GLY(7)	2334 (-NA- / 40mlGlassVial), 2335 (-NA- / 40mlGlassVial) (2)	HW29	01/31/2012 18:18	
HW29z	Drinking Water/ Mike Ferrier	Grab	17GLY(7), 17GLY(7)	2369 (-NA- / 40mlGlassVial), 2370 (-NA- / 40mlGlassVial) (2)	HW29	01/31/2012 18:18	
HW32	Drinking Water/ Tom Sedlacek	Grab	17GLY(7), 17GLY(7)	2427 (-NA- / 40mlGlassVial), 2428 (-NA- / 40mlGlassVial) (2)	HW32	02/01/2012 10:45	
HW32-P	Drinking Water/ Dan Jacobsen	Grab	17GLY(7), 17GLY(7)	2463 (-NA- / 40mlGlassVial), 2464 (-NA- / 40mlGlassVial) (2)	HW32	02/01/2012 10:50	
HW33	Drinking Water/ Mike Ferrier	Grab	17GLY(7), 17GLY(7)	2520 (-NA- / 40mlGlassVial), 2521 (-NA- / 40mlGlassVial) (2)	HW33	02/01/2012 10:49	
HW33a-P	Drinking Water/ David Johnson	Grab	17GLY(7), 17GLY(7)	2556 (-NA- / 40mlGlassVial), 2557 (-NA- / 40mlGlassVial) (2)	HW33a	02/01/2012 10:42	

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: 17GLY=17-Glycol

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
14	<i>[Signature]</i>	2/2/12	<i>[Signature]</i>	2-2-12	10:30						

*[Signature]*



## **Appendix D**

### **Laboratory Case Narrative**

**Job Narrative**  
**480-15712-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC VOA**

Method(s) 8015B: The method blanks (MB 480-50495/1-A) and (MB 480-50613/1-A) contain components above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8015B: The following sample submitted for volatiles analysis was received with a pH that was less than 7: HW35 (480-15712-18).

Method(s) 8015B: The following samples submitted for volatiles analysis were received with a pH that was less than 7: FB07 (480-15712-1), HW20-P (480-15712-5).

No other analytical or quality issues were noted.

## METHOD SUMMARY

Client: Techlaw, Inc

Job Number: 480-15712-1

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Glycols -Direct Injection (GC/FID)		TAL BUF	SW846 8015B	
8015 Direct Injection Prep (Aqueous)		TAL BUF		SW846 8015 Prep

### Lab References:

TAL BUF = TestAmerica Buffalo

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.



RE: TechLaw Project No. R33917

Fischer, Brian

to:

Fred Foreman

02/23/2012 11:19 AM

Cc:

"Nance, Gene"

Hide Details

From: "Fischer, Brian" <Brian.Fischer@testamericainc.com>

To: Fred Foreman/ESC/R3/USEPA/US@EPA

Cc: "Nance, Gene" <Gnance@TechLawInc.com>

History: This message has been replied to.

Hi Fred,

This 8015 glycol modified method is single column analysis, there is no secondary column.

**Announcing TotalAccess 4.0** – Online access to your data. New homepage with easier access to your data, multiple search criteria including sampling date and much more! Contact your Account Executive or Project Manager today to arrange for a live demonstration!

**BRIAN FISCHER**

Project Management Supervisor

**TestAmerica**

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**From:** Fred Foreman [<mailto:Foreman.Fred@epamail.epa.gov>]

## **Attachment 2**

## **Appendix A**

### **Form Is**

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FB07 Lab Sample ID: 480-15712-1  
 Matrix: Water Lab File ID: PE09014.d  
 Analysis Method: 8015B Date Collected: 01/31/2012 14:15  
 Sample wt/vol: 0.5 (mL) Date Analyzed: 02/06/2012 10:23  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	3.5	J B	10	1.6
111-46-6	Diethylene glycol	0.82	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	108		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW18 Lab Sample ID: 480-15712-2  
 Matrix: Water Lab File ID: PE09015.d  
 Analysis Method: 8015B Date Collected: 01/30/2012 11:27  
 Sample wt/vol: .5(mL) Date Analyzed: 02/06/2012 10:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	2.0	J B	10	1.6
111-46-6	Diethylene glycol	0.75	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	100		66-130



FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW18-P Lab Sample ID: 480-15712-3  
 Matrix: Water Lab File ID: PE09016.d  
 Analysis Method: 8015B Date Collected: 01/30/2012 11:52  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/06/2012 10:57  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.68	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	108		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW20 Lab Sample ID: 480-15712-4  
 Matrix: Water Lab File ID: PE09017.d  
 Analysis Method: 8015B Date Collected: 01/30/2012 16:12  
 Sample wt/vol: .5(mL) Date Analyzed: 02/06/2012 11:15  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.67	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	106		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW20-P Lab Sample ID: 480-15712-5  
 Matrix: Water Lab File ID: PE09018.d  
 Analysis Method: 8015B Date Collected: 01/30/2012 16:29  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/06/2012 11:32  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.72	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	111		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW25-P Lab Sample ID: 480-15712-6  
 Matrix: Water Lab File ID: PE09019.d  
 Analysis Method: 8015B Date Collected: 01/30/2012 15:32  
 Sample wt/vol: .5(mL) Date Analyzed: 02/06/2012 11:49  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.67	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	110		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: HW26 Lab Sample ID: 480-15712-7  
Matrix: Water Lab File ID: PE09021.d  
Analysis Method: 8015B Date Collected: 01/31/2012 10:26  
Sample wt/vol: .5 (mL) Date Analyzed: 02/06/2012 12:24  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	4.1	J B	10	1.6
111-46-6	Diethylene glycol	0.98	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	105		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW26-P Lab Sample ID: 480-15712-8  
 Matrix: Water Lab File ID: PE09022.d  
 Analysis Method: 8015B Date Collected: 01/31/2012 11:37  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/06/2012 12:41  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	1.7	J B	10	1.6
111-46-6	Diethylene glycol	0.73	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	97		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW29 Lab Sample ID: 480-15712-9  
 Matrix: Water Lab File ID: PE09023.d  
 Analysis Method: 8015B Date Collected: 01/31/2012 18:18  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/06/2012 12:59  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.62	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	97		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW29Z Lab Sample ID: 480-15712-10  
 Matrix: Water Lab File ID: PE09024.d  
 Analysis Method: 8015B Date Collected: 01/31/2012 18:18  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/06/2012 13:16  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.74	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	109		66-130



FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW32 Lab Sample ID: 480-15712-11  
 Matrix: Water Lab File ID: PE09067.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 10:45  
 Sample wt/vol: .5(mL) Date Analyzed: 02/07/2012 11:31  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	1.7	J	10	1.6
111-46-6	Diethylene glycol	0.75	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	113		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW32-P Lab Sample ID: 480-15712-12  
 Matrix: Water Lab File ID: PE09068.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 10:50  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 11:48  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.94	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	112		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW33 Lab Sample ID: 480-15712-13  
 Matrix: Water Lab File ID: PE09069.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 10:49  
 Sample wt/vol: .5(mL) Date Analyzed: 02/07/2012 12:06  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.51	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	114		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW33A-P Lab Sample ID: 480-15712-14  
 Matrix: Water Lab File ID: PE09070.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 10:42  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 12:23  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.97	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	114		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW33B-P Lab Sample ID: 480-15712-15  
 Matrix: Water Lab File ID: PE09071.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 11:42  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 12:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.89	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	111		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW34A Lab Sample ID: 480-15712-16  
 Matrix: Water Lab File ID: PE09072.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 15:47  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 12:58  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	ND		10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	114		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW34A-P Lab Sample ID: 480-15712-17  
 Matrix: Water Lab File ID: PE09074.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 15:55  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 13:32  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	3.0	J	10	1.6
111-46-6	Diethylene glycol	0.95	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	110		66-130

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW35 Lab Sample ID: 480-15712-18  
 Matrix: Water Lab File ID: PE09075.d  
 Analysis Method: 8015B Date Collected: 01/31/2012 11:49  
 Sample wt/vol: .5(mL) Date Analyzed: 02/07/2012 13:50  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	ND		10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	107		66-130



FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW52 Lab Sample ID: 480-15712-19  
 Matrix: Water Lab File ID: PE09076.d  
 Analysis Method: 8015B Date Collected: 01/31/2012 15:22  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 14:07  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	0.90	J B	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	107		66-130

## **Appendix B**

### **Support Documentation**

FORM VI  
GC VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1 Analy Batch No.: 49964

SDG No.: \_\_\_\_\_

Instrument ID: PE-01 GC Column: ZB-5 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/01/2012 10:57 Calibration End Date: 02/01/2012 12:06 Calibration ID: 5852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 480-49964/5	PE08205.d
Level 2	STD 480-49964/6	PE08206.d
Level 3	STD 480-49964/7	PE08207.d
Level 4	STD 480-49964/8	PE08208.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
2-Methoxyethanol	563452	596737	595761	513714	Ave		571859.509				6.2		20.0			
2-Ethoxyethanol	751570	792686	787469	694526	Ave		760510.780				5.3		20.0			
Propylene glycol	617951	671784	682739	601502	Ave		643217.933				5.4		20.0			
Ethylene glycol	459250	498692	513964	454783	Ave		480568.287				5.3		20.0			
Diethylene glycol	548106	538716	560304	500903	Ave		540870.511				4.4		20.0			
Triethylene Glycol	362706	305218	329041	307007	Ave		350933.990				17.0		20.0			
1,4-Butanediol	913252	977122	967058	853325	Ave		917742.130				5.9		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
GC VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1 Analy Batch No.: 49964

SDG No.: \_\_\_\_\_

Instrument ID: PE-01 GC Column: ZB-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/01/2012 10:57 Calibration End Date: 02/01/2012 12:06 Calibration ID: 5852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 480-49964/5	PE08205.d
Level 2	STD 480-49964/6	PE08206.d
Level 3	STD 480-49964/7	PE08207.d
Level 4	STD 480-49964/8	PE08208.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4		LVL 1	LVL 2	LVL 3	LVL 4	
2-Methoxyethanol	Ave	5634515	11934735	23830431	25685716		10.0	20.0	40.0	50.0	
2-Ethoxyethanol	Ave	7515699	15853713	31498762	34726285		10.0	20.0	40.0	50.0	
Propylene glycol	Ave	6179509	13435683	27309567	30075112		10.0	20.0	40.0	50.0	
Ethylene glycol	Ave	4592495	9973849	20558557	22739168		10.0	20.0	40.0	50.0	
Diethylene glycol	Ave	5481057	10774329	22412169	25045139		10.0	20.0	40.0	50.0	
Triethylene Glycol	Ave	3627055	6104360	13161638	15350365		10.0	20.0	40.0	50.0	
1,4-Butanediol	Ave	36530103	48856122	58023475	68266023		40.0	50.0	60.0	80.0	

Curve Type Legend:

Ave = Average

## GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica BuffaloJob No.: 480-15712-1

SDG No.: \_\_\_\_\_

Instrument ID: PE-01Start Date: 02/06/2012 08:27Analysis Batch Number: 50476End Date: 02/06/2012 23:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 480-50476/5		02/06/2012 08:27	1	PE09009.d	ZB-5 0.25 (mm)
MB 480-50495/1-A		02/06/2012 09:13	1	PE09011.d	ZB-5 0.25 (mm)
LCS 480-50495/2-A		02/06/2012 09:48	1	PE09012.d	ZB-5 0.25 (mm)
LCSD 480-50495/22-A		02/06/2012 10:05	1	PE09013.d	ZB-5 0.25 (mm)
480-15712-1	FB07	02/06/2012 10:23	1	PE09014.d	ZB-5 0.25 (mm)
480-15712-2	HW18	02/06/2012 10:40	1	PE09015.d	ZB-5 0.25 (mm)
480-15712-3	HW18-P	02/06/2012 10:57	1	PE09016.d	ZB-5 0.25 (mm)
480-15712-4	HW20	02/06/2012 11:15	1	PE09017.d	ZB-5 0.25 (mm)
480-15712-5	HW20-P	02/06/2012 11:32	1	PE09018.d	ZB-5 0.25 (mm)
480-15712-6	HW25-P	02/06/2012 11:49	1	PE09019.d	ZB-5 0.25 (mm)
CCV 480-50476/16		02/06/2012 12:07	1	PE09020.d	ZB-5 0.25 (mm)
480-15712-7	HW26	02/06/2012 12:24	1	PE09021.d	ZB-5 0.25 (mm)
480-15712-8	HW26-P	02/06/2012 12:41	1	PE09022.d	ZB-5 0.25 (mm)
480-15712-9	HW29	02/06/2012 12:59	1	PE09023.d	ZB-5 0.25 (mm)
480-15712-10	HW29Z	02/06/2012 13:16	1	PE09024.d	ZB-5 0.25 (mm)
CCV 480-50476/21		02/06/2012 13:33	1	PE09025.d	ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 14:00	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 14:18	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 14:35	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 14:53	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 15:10	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 15:27	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 15:45	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 16:02	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 16:19	1		ZB-5 0.25 (mm)
CCV 480-50476/31		02/06/2012 16:37	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 16:54	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 17:11	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 17:29	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 17:46	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 18:03	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 18:21	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 18:38	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 18:55	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 19:12	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 19:30	1		ZB-5 0.25 (mm)
CCV 480-50476/42		02/06/2012 19:47	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 20:04	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 20:22	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 20:39	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 20:56	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 21:14	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 21:31	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 21:48	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 22:06	1		ZB-5 0.25 (mm)

8015B

## GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica BuffaloJob No.: 480-15712-1

SDG No.: \_\_\_\_\_

Instrument ID: PE-01Start Date: 02/06/2012 08:27Analysis Batch Number: 50476End Date: 02/06/2012 23:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/06/2012 22:23	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 22:40	1		ZB-5 0.25 (mm)
CCV 480-50476/53		02/06/2012 22:57	1		ZB-5 0.25 (mm)
ZZZZZ		02/06/2012 23:15	1		ZB-5 0.25 (mm)
CCV 480-50476/55		02/06/2012 23:32	1		ZB-5 0.25 (mm)

FORM VII  
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 480-50476/5 Calibration Date: 02/06/2012 08:27  
 Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57  
 GC Column: ZB-5 ID: 0.25 (mm) Calib End Date: 02/01/2012 12:06  
 Lab File ID: PE09009.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	649807		22.7	20.0	13.6	20.0
2-Ethoxyethanol	Ave	760511	857584		22.6	20.0	12.8	20.0
Propylene glycol	Ave	643218	711647		22.1	20.0	10.6	20.0
Ethylene glycol	Ave	480568	524806		21.8	20.0	9.2	20.0
Diethylene glycol	Ave	540871	573135		21.2	20.0	6.0	20.0
Triethylene Glycol	Ave	350934	311061		17.7	20.0	-11.4	20.0
1,4-Butanediol	Ave	917742	915022		49.9	50.0	-0.3	20.0

FORM VII  
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 480-50476/16 Calibration Date: 02/06/2012 12:07  
 Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57  
 GC Column: ZB-5 ID: 0.25 (mm) Calib End Date: 02/01/2012 12:06  
 Lab File ID: PE09020.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	646314		22.6	20.0	13.0	20.0
2-Ethoxyethanol	Ave	760511	854059		22.5	20.0	12.3	20.0
Propylene glycol	Ave	643218	728920		22.7	20.0	13.3	20.0
Ethylene glycol	Ave	480568	536196		22.3	20.0	11.6	20.0
Diethylene glycol	Ave	540871	576556		21.3	20.0	6.6	20.0
Triethylene Glycol	Ave	350934	297453		17.0	20.0	-15.2	20.0
1,4-Butanediol	Ave	917742	924141		50.3	50.0	0.7	20.0



FORM VII  
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 480-50476/21 Calibration Date: 02/06/2012 13:33  
 Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57  
 GC Column: ZB-5 ID: 0.25 (mm) Calib End Date: 02/01/2012 12:06  
 Lab File ID: PE09025.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	608641		21.3	20.0	6.4	20.0
2-Ethoxyethanol	Ave	760511	803931		21.1	20.0	5.7	20.0
Propylene glycol	Ave	643218	685966		21.3	20.0	6.6	20.0
Ethylene glycol	Ave	480568	503428		21.0	20.0	4.8	20.0
Diethylene glycol	Ave	540871	551527		20.4	20.0	2.0	20.0
Triethylene Glycol	Ave	350934	299044		17.0	20.0	-14.8	20.0
1,4-Butanediol	Ave	917742	871753		47.5	50.0	-5.0	20.0

## GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica BuffaloJob No.: 480-15712-1

SDG No.: \_\_\_\_\_

Instrument ID: PE-01Start Date: 02/01/2012 10:57Analysis Batch Number: 49964End Date: 02/01/2012 19:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/01/2012 10:57	1		ZB-5 0.25(mm)
STD 480-49964/5 IC		02/01/2012 11:15	1	PE08205.d	ZB-5 0.25(mm)
STD 480-49964/6 IC		02/01/2012 11:32	1	PE08206.d	ZB-5 0.25(mm)
STD 480-49964/7 IC		02/01/2012 11:49	1	PE08207.d	ZB-5 0.25(mm)
STD 480-49964/8 IC		02/01/2012 12:06	1	PE08208.d	ZB-5 0.25(mm)
ICV 480-49964/9		02/01/2012 12:24	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 13:43	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 14:11	1		ZB-5 0.25(mm)
ICV 480-49964/12		02/01/2012 14:48	1		ZB-5 0.25(mm)
CCV 480-49964/13		02/01/2012 15:52	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 16:09	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 16:26	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 16:44	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 17:01	1		ZB-5 0.25(mm)
MDLV 480-49832/5-A		02/01/2012 17:18	1		ZB-5 0.25(mm)
MDLV 480-49832/6-A		02/01/2012 17:36	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 17:53	50		ZB-5 0.25(mm)
CCV 480-49964/24		02/01/2012 19:02	1		ZB-5 0.25(mm)

## GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo

Job No.: 480-15712-1

SDG No.:

Instrument ID: PE-01

Start Date: 02/07/2012 09:15

Analysis Batch Number: 50605

End Date: 02/07/2012 14:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 480-50605/3		02/07/2012 09:15	1	PE09062.d	ZB-5 0.25 (mm)
MB 480-50613/1-A		02/07/2012 10:25	1	PE09065.d	ZB-5 0.25 (mm)
LCS 480-50613/2-A		02/07/2012 10:42	1	PE09066.d	ZB-5 0.25 (mm)
480-15712-11	HW32	02/07/2012 11:31	1	PE09067.d	ZB-5 0.25 (mm)
480-15712-12	HW32-P	02/07/2012 11:48	1	PE09068.d	ZB-5 0.25 (mm)
480-15712-13	HW33	02/07/2012 12:06	1	PE09069.d	ZB-5 0.25 (mm)
480-15712-14	HW33A-P	02/07/2012 12:23	1	PE09070.d	ZB-5 0.25 (mm)
480-15712-15	HW33B-P	02/07/2012 12:40	1	PE09071.d	ZB-5 0.25 (mm)
480-15712-16	HW34A	02/07/2012 12:58	1	PE09072.d	ZB-5 0.25 (mm)
CCV 480-50605/14		02/07/2012 13:15	1	PE09073.d	ZB-5 0.25 (mm)
480-15712-17	HW34A-P	02/07/2012 13:32	1	PE09074.d	ZB-5 0.25 (mm)
480-15712-18	HW35	02/07/2012 13:50	1	PE09075.d	ZB-5 0.25 (mm)
480-15712-19	HW52	02/07/2012 14:07	1	PE09076.d	ZB-5 0.25 (mm)
480-15712-16 MS	HW34A MS	02/07/2012 14:24	1	PE09077.d	ZB-5 0.25 (mm)
480-15712-16 MSD	HW34A MSD	02/07/2012 14:42	1	PE09078.d	ZB-5 0.25 (mm)
CCV 480-50605/20		02/07/2012 14:59	1	PE09079.d	ZB-5 0.25 (mm)

FORM VII  
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 480-50605/3 Calibration Date: 02/07/2012 09:15  
 Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57  
 GC Column: ZB-5 ID: 0.25 (mm) Calib End Date: 02/01/2012 12:06  
 Lab File ID: PE09062.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	622900		21.8	20.0	8.9	20.0
2-Ethoxyethanol	Ave	760511	859031		22.6	20.0	13.0	20.0
Propylene glycol	Ave	643218	697180		21.7	20.0	8.4	20.0
Ethylene glycol	Ave	480568	521275		21.7	20.0	8.5	20.0
Diethylene glycol	Ave	540871	562476		20.8	20.0	4.0	20.0
Triethylene Glycol	Ave	350934	363077		20.7	20.0	3.5	20.0
1,4-Butanediol	Ave	917742	884648		48.2	50.0	-3.6	20.0

FORM VII  
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 480-50605/14 Calibration Date: 02/07/2012 13:15  
 Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57  
 GC Column: ZB-5 ID: 0.25 (mm) Calib End Date: 02/01/2012 12:06  
 Lab File ID: PE09073.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	629925		22.0	20.0	10.2	20.0
2-Ethoxyethanol	Ave	760511	896849		23.6	20.0	17.9	20.0
Propylene glycol	Ave	643218	710815		22.1	20.0	10.5	20.0
Ethylene glycol	Ave	480568	534074		22.2	20.0	11.1	20.0
Diethylene glycol	Ave	540871	575561		21.3	20.0	6.4	20.0
Triethylene Glycol	Ave	350934	312711		17.8	20.0	-10.9	20.0
1,4-Butanediol	Ave	917742	913464		49.8	50.0	-0.5	20.0

FORM VII  
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 480-50605/20 Calibration Date: 02/07/2012 14:59  
 Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57  
 GC Column: ZB-5 ID: 0.25 (mm) Calib End Date: 02/01/2012 12:06  
 Lab File ID: PE09079.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	615740		21.5	20.0	7.7	20.0
2-Ethoxyethanol	Ave	760511	881556		23.2	20.0	15.9	20.0
Propylene glycol	Ave	643218	680967		21.2	20.0	5.9	20.0
Ethylene glycol	Ave	480568	512600		21.3	20.0	6.7	20.0
Diethylene glycol	Ave	540871	573516		21.2	20.0	6.0	20.0
Triethylene Glycol	Ave	350934	365758		20.8	20.0	4.2	20.0
1,4-Butanediol	Ave	917742	872473		47.5	50.0	-4.9	20.0

FORM III  
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: PE09077.d  
 Lab ID: 480-15712-16 MS Client ID: HW34A MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Ethylene glycol	20.0	ND	21.0	105	50-150	
Triethylene Glycol	20.0	ND	12.3	61	50-150	
Diethylene glycol	20.0	ND	19.3	96	50-150	
2-Methoxyethanol	20.0	ND	19.8	99	50-150	
2-Ethoxyethanol	20.0	ND	21.2	106	50-150	

# Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW34A MS Lab Sample ID: 480-15712-16 MS  
 Matrix: Water Lab File ID: PE09077.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 15:47  
 Sample wt/vol: .5(mL) Date Analyzed: 02/07/2012 14:24  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	21.0		10	0.76
112-27-6	Triethylene Glycol	12.3		10	1.6
111-46-6	Diethylene glycol	19.3		10	0.51
109-86-4	2-Methoxyethanol	19.8		10	0.76
110-80-5	2-Ethoxyethanol	21.2		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	105		66-130



FORM III  
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Buffalo

Job No.: 480-15712-1

SDG No.: \_\_\_\_\_

Matrix: Water

Level: Low

Lab File ID: PE09078.d

Lab ID: 480-15712-16 MSD

Client ID: HW34A MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Ethylene glycol	20.0	22.4	112	6	50	50-150	
Triethylene Glycol	20.0	18.3	91	39	50	50-150	
Diethylene glycol	20.0	21.8	109	12	50	50-150	
2-Methoxyethanol	20.0	21.0	105	6	50	50-150	
2-Ethoxyethanol	20.0	25.6	128	19	50	50-150	

# Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HW34A MSD Lab Sample ID: 480-15712-16 MSD  
 Matrix: Water Lab File ID: PE09078.d  
 Analysis Method: 8015B Date Collected: 02/01/2012 15:47  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 14:42  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	22.4		10	0.76
112-27-6	Triethylene Glycol	18.3		10	1.6
111-46-6	Diethylene glycol	21.8		10	0.51
109-86-4	2-Methoxyethanol	21.0		10	0.76
110-80-5	2-Ethoxyethanol	25.6		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	111		66-130

FORM III  
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
SDG No.: \_\_\_\_\_  
Matrix: Water Level: Low Lab File ID: PE09012.d  
Lab ID: LCS 480-50495/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Ethylene glycol	20.0	18.5	93	62-148	
Triethylene Glycol	20.0	13.7	68	10-169	
Diethylene glycol	20.0	17.7	88	61-150	
2-Methoxyethanol	20.0	20.4	102	75-121	
2-Ethoxyethanol	20.0	19.8	99	72-122	

# Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 480-50495/2-A  
 Matrix: Water Lab File ID: PE09012.d  
 Analysis Method: 8015B Date Collected: \_\_\_\_\_  
 Sample wt/vol: 0.5 (mL) Date Analyzed: 02/06/2012 09:48  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	18.5		10	0.76
112-27-6	Triethylene Glycol	13.7		10	1.6
111-46-6	Diethylene glycol	17.7		10	0.51
109-86-4	2-Methoxyethanol	20.4		10	0.76
110-80-5	2-Ethoxyethanol	19.8		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	93		66-130

FORM III  
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: PE09013.d  
 Lab ID: LCSD 480-50495/22-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Ethylene glycol	20.0	21.4	107	14	50	62-148	
Triethylene Glycol	20.0	19.3	97	34	50	10-169	
Diethylene glycol	20.0	21.8	109	21	50	61-150	
2-Methoxyethanol	20.0	22.8	114	11	50	75-121	
2-Ethoxyethanol	20.0	22.0	110	11	50	72-122	

# Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 480-50495/22-A  
 Matrix: Water Lab File ID: PE09013.d  
 Analysis Method: 8015B Date Collected: \_\_\_\_\_  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/06/2012 10:05  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	21.4		10	0.76
112-27-6	Triethylene Glycol	19.3		10	1.6
111-46-6	Diethylene glycol	21.8		10	0.51
109-86-4	2-Methoxyethanol	22.8		10	0.76
110-80-5	2-Ethoxyethanol	22.0		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	97		66-130

FORM III  
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo

Job No.: 480-15712-1

SDG No.: \_\_\_\_\_

Matrix: Water

Level: Low

Lab File ID: PE09066.d

Lab ID: LCS 480-50613/2-A

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Ethylene glycol	20.0	20.8	104	62-148	
Triethylene Glycol	20.0	16.8	84	10-169	
Diethylene glycol	20.0	20.2	101	61-150	
2-Methoxyethanol	20.0	20.4	102	75-121	
2-Ethoxyethanol	20.0	24.2	121	72-122	

# Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 480-50613/2-A  
Matrix: Water Lab File ID: PE09066.d  
Analysis Method: 8015B Date Collected: \_\_\_\_\_  
Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 10:42  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	20.8		10	0.76
112-27-6	Triethylene Glycol	16.8		10	1.6
111-46-6	Diethylene glycol	20.2		10	0.51
109-86-4	2-Methoxyethanol	20.4		10	0.76
110-80-5	2-Ethoxyethanol	24.2		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	104		66-130



FORM II  
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low  
 GC Column (1): ZB-5 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	14BD1 #
FB07	480-15712-1	108
HW18	480-15712-2	100
HW18-P	480-15712-3	108
HW20	480-15712-4	106
HW20-P	480-15712-5	111
HW25-P	480-15712-6	110
HW26	480-15712-7	105
HW26-P	480-15712-8	97
HW29	480-15712-9	97
HW29Z	480-15712-10	109
HW32	480-15712-11	113
HW32-P	480-15712-12	112
HW33	480-15712-13	114
HW33A-P	480-15712-14	114
HW33B-P	480-15712-15	111
HW34A	480-15712-16	114
HW34A-P	480-15712-17	110
HW35	480-15712-18	107
HW52	480-15712-19	107
	MB 480-50495/1-A	94
	MB 480-50613/1-A	103
	LCS	93
	480-50495/2-A	
	LCS	104
	480-50613/2-A	
	LCSD	97
	480-50495/22-A	
HW34A MS	480-15712-16 MS	105
HW34A MSD	480-15712-16 MSD	111

14BD = 1,4-Butanediol

QC LIMITS  
66-130

# Column to be used to flag recovery values

FORM II 8015B

GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.:  
 Batch Number: 50495 Batch Start Date: 02/06/12 08:10 Batch Analyst: Neary, Mary Ann  
 Batch Method: 8015 Prep Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GLY_CCV_1000_00014	GLY_SURR1000_00015
MB 480-50495/1		8015 Prep, 8015B		0.5 mL	1 mL		50 uL
LCS 480-50495/2		8015 Prep, 8015B		0.5 mL	1 mL	10 uL	50 uL
480-15712-B-1	FB07	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL
480-15712-B-2	HW18	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-A-3	HW18-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-A-4	HW20	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-A-5	HW20-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-B-6	HW25-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-A-7	HW26	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-B-8	HW26-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-A-9	HW29	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
480-15712-B-10	HW29Z	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL
LCSB 480-50495/22		8015 Prep, 8015B		.5 mL	1 mL	10 uL	50 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

## GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1

SDG No.:

Batch Number: 50613 Batch Start Date: 02/07/12 09:38 Batch Analyst: Neary, Mary Ann

Batch Method: 8015 Prep Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GLY_CCV_1000 00014	GLY_SURR1000 00016	
MB 480-50613/1		8015 Prep, 8015B		.5 mL	1 mL		50 uL	
LCS 480-50613/2		8015 Prep, 8015B		.5 mL	1 mL	10 uL	50 uL	
480-15712-A-11	HW32	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-B-12	HW32-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-A-13	HW33	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-B-14	HW33A-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-A-15	HW33B-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-B-16	HW34A	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-A-16	HW34A	8015 Prep, 8015B	T	.5 mL	1 mL	10 uL	50 uL	
MS		8015B						
480-15712-B-16	HW34A	8015 Prep, 8015B	T	.5 mL	1 mL	10 uL	50 uL	
MSD		8015B						
480-15712-E-17	HW34A-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-A-18	HW35	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	
480-15712-A-19	HW52	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL	

Batch Notes

Basis	Basis Description
T	Total/NA

FORM IV  
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: MB 480-50495/1-A  
 Matrix: Water Date Extracted: 02/06/2012 08:10  
 Lab File ID: (1) PE09011.d Lab File ID: (2) \_\_\_\_\_  
 Date Analyzed: (1) 02/06/2012 09:13 Date Analyzed: (2) \_\_\_\_\_  
 Instrument ID: (1) PE-01 Instrument ID: (2) \_\_\_\_\_  
 GC Column: (1) ZB-5 ID: 0.25 (mm) GC Column: (2) \_\_\_\_\_ ID: \_\_\_\_\_

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 480-50495/2-A	02/06/2012 09:48	
	LCSD 480-50495/22-A	02/06/2012 10:05	
FB07	480-15712-1	02/06/2012 10:23	
HW18	480-15712-2	02/06/2012 10:40	
HW18-P	480-15712-3	02/06/2012 10:57	
HW20	480-15712-4	02/06/2012 11:15	
HW20-P	480-15712-5	02/06/2012 11:32	
HW25-P	480-15712-6	02/06/2012 11:49	
HW26	480-15712-7	02/06/2012 12:24	
HW26-P	480-15712-8	02/06/2012 12:41	
HW29	480-15712-9	02/06/2012 12:59	
HW29Z	480-15712-10	02/06/2012 13:16	

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 480-50495/1-A  
 Matrix: Water Lab File ID: PE09011.d  
 Analysis Method: 8015B Date Collected: \_\_\_\_\_  
 Sample wt/vol: 0.5 (mL) Date Analyzed: 02/06/2012 09:13  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50476 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	2.40	J	10	1.6
111-46-6	Diethylene glycol	0.883	J	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	94		66-130

FORM IV  
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: MB 480-50613/1-A  
 Matrix: Water Date Extracted: 02/07/2012 09:38  
 Lab File ID: (1) PE09065.d Lab File ID: (2) \_\_\_\_\_  
 Date Analyzed: (1) 02/07/2012 10:25 Date Analyzed: (2) \_\_\_\_\_  
 Instrument ID: (1) PE-01 Instrument ID: (2) \_\_\_\_\_  
 GC Column: (1) ZB-5 ID: 0.25 (mm) GC Column: (2) \_\_\_\_\_ ID: \_\_\_\_\_

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 480-50613/2-A	02/07/2012 10:42	
HW32	480-15712-11	02/07/2012 11:31	
HW32-P	480-15712-12	02/07/2012 11:48	
HW33	480-15712-13	02/07/2012 12:06	
HW33A-P	480-15712-14	02/07/2012 12:23	
HW33B-P	480-15712-15	02/07/2012 12:40	
HW34A	480-15712-16	02/07/2012 12:58	
HW34A-P	480-15712-17	02/07/2012 13:32	
HW35	480-15712-18	02/07/2012 13:50	
HW52	480-15712-19	02/07/2012 14:07	
HW34A MS	480-15712-16 MS	02/07/2012 14:24	
HW34A MSD	480-15712-16 MSD	02/07/2012 14:42	

FORM I  
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-15712-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 480-50613/1-A  
 Matrix: Water Lab File ID: PE09065.d  
 Analysis Method: 8015B Date Collected: \_\_\_\_\_  
 Sample wt/vol: .5 (mL) Date Analyzed: 02/07/2012 10:25  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: ZB-5 ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 50605 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76
112-27-6	Triethylene Glycol	ND		10	1.6
111-46-6	Diethylene glycol	1.03	J	10	0.51
109-86-4	2-Methoxyethanol	ND		10	0.76
110-80-5	2-Ethoxyethanol	ND		10	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	103		66-130